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REPORT NO. 4



Cotton Fiber and Processing Test Results



CROP of

1976



Agricultural Marketing Service
U.S. DEPARTMENT OF AGRICULTURE
Memphis, Tenn. 38122 October 22, 1976

COTTON FIBER AND PROCESSING TEST RESULTS, CROP OF 1976

Discussion of Test Results

The average Fibrograph 2.5% span length of short staple samples tested from the Southwest through October 15 is shorter than a year ago, according to the Cotton Division, Agricultural Marketing Service, USDA. Cottons are less uniform. The average fiber strength is considerably weaker than a year ago on the limited number of lots tested this season. Shirley Analyzer nonlint content is lower, while picker and card waste on the average is higher than last season. Yarns spun from these samples show considerably weaker yarn strength but approximately the same appearance and imperfection qualities as a year ago. The average spinning potential yarn number is lower.

Medium staple samples tested from the South Central area are slightly shorter and considerably finer than a year ago at this time. The average 1/8-inch gage fiber strength is weaker. Picker and card waste is higher. Generally the yarn qualities are better than a year ago. Yarns spun from these samples show stronger skein strength and higher appearance grades than a year ago. There are fewer imperfections. The average spinning potential yarn number is higher.

Medium staple samples tested from the Southwest show cotton fibers to be slightly longer and finer than a year ago. Picker and card waste is higher. Yarns spun from these samples show approximately the same yarn properties as a year ago except for having slightly fewer imperfections.

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These reports are published bi-weekly during the harvesting season and will be summarized in a comprehensive report at the end of the crop year. A detailed description of the tests shown in this report may be found in the summary report for the previous season.^{1/} These reports are available on request from the Standardization Section, Cotton Division, Agricultural Marketing Service, U. S. Department of Agriculture, 4841 Summer Avenue, Memphis, TN 38122.

^{1/} Summary of Cotton Fiber and Processing Test Results, Crop of 1975,
USDA, AMS, Cotton Division, May 1976.

Table 1.--Cotton: Averages of fiber and processing tests from selected gin points in the United States through October 15, 1976 1/

Staple group Area, and Crop year	Lots tested	Fiber test results							Processing test results					
		Fibrograph		Pct.	Rdg.	Mpsi	Fiber strength		S A nonlint	P & C waste	Yarn quality		Spin. Potent.	
		2.5% span	50/2.5 unif.				Zero gage	1/8" gage			Skein str.	Appearance		
No.	Inches	Pct.	G/tex	Pct.	Pct.	Lbs.	Index	No.	Yarn No.					
Short Staple: Southwest	6	1.01	46		4.4	88	23	3.4	5.8	104	113	11	48	
	3	.96	44		4.4	83	20	2.8	7.1	83	113	12	36	
Medium Staple: South Central	6	1.11	46		4.8	88	24	2.9	5.1	99	102	19	54	
	3	1.10	46		4.3	88	22	2.9	5.9	112	107	15	59	
Southwest	21	1.08	45		4.3	81	22	2.9	4.7	103	99	22	58	
	22	1.07	45		4.2	81	22	3.1	6.0	105	99	19	58	
Significant dif- ference 2/		0.02	2		0.2	2	1	0.5	0.5	4(22s)	5	2	3	

1/ Based on a limited number of samples of modal quality
2/ Minimum differences considered to be significant for comparisons in this table.

Table 2 --Cotton, American upland short staple: Quality characteristics by production areas, crop of 1976...

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns									
No	Grade	Name & Code	Stple	Digital Fibrograph		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non- lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfct'ns		Spin. Potent- ial	
				2.5% span	Unif		Zero Gage	1/8" Gage			Pct	Mpsi		G/tex	Pct	Pct	No	No	8s or 7 1/4 tx	22sor 27 tx	8s or 7 1/4 tx		22sor 27 tx
32s																							
SOUTHWEST AREA																							
CENTRAL TEXAS																							
BRANDON																							
1	SLM	LT SP	42	31	0.98	45	79	20	6.8	3.1	2	4	6.8	307	89	7.7	6.0	130	120	11	9	42	
														100 PERCENT									
ITALY																							
1	MID	LT SP	32	30	0.92	42	82	19	5.6	2.5	2	4	6.7	283	78	6.8	5.5	130	110	14	10	31	
														100 PERCENT									
ITASCA																							
1	SLM	LT SP	42	31	0.98	45	87	21	5.4	2.9	2	4	7.9	296	83	6.4	5.1	130	110	22	17	35	
														100 PERCENT									

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1976

Production Area, Classification				Fiber Test Results										Processing Test Results - Carded Yarns									
Sample Number		Digital Fibrograph		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non- Lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfct's		Spin. Poten- tial			
No	Grade Name & Code	Stple	32s	In	Pct	Rdg	Mpsi	G/tex	Pct	No	Yel	Pct	Lbs	Lbs	Pct	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	No	No		
SOUTH CENTRAL AREA																							
ARKANSAS DRIVER																							
1	SLM		41	36	1.11	45	4.2	89	23	6.4	3.5	1	2	6.3	117	38	6.5	4.5	100	80	16	11	63
LOUISIANA OAK RIDGE																							
1	SLM		41	34	1.10	46	4.3	88	22	6.3	2.4	1	2	5.5	116	39	6.1	4.3	110	90	19	13	61
SICILY ISLAND																							
1	SLM		41	34	1.08	46	4.4	87	22	5.3	2.7	2	3	6.0	102	32	5.4	3.9	110	100	11	7	53
SOUTHWEST AREA																							
CENTRAL TEXAS AQUILLA																							
1	SGO		61	32	1.01	40	3.1	80	20	6.2	5.6	2	3	9.6	95	28	5.9	3.8	70	60	40	30	49
BATESVILLE																							
2	MIO		31	35	1.12	46	4.5	80	22	6.4	1.9	1	3	5.5	101	32	6.4	4.5	100	80	23	15	56
NAVASOTA																							
1	MIO		31	35	1.14	45	4.8	81	22	7.1	1.7	1	3	3.9	111	36	6.5	4.7	100	90	13	8	65

1/ Reduced from 51 because of bark

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